

WHAT IS CLAIMED IS:

- 1 1. A method for improving a selection of a graphic user interface (GUI) icon
2 with a pointing device, comprising the steps of:
3 acquiring data corresponding to a motion of a pointing cursor on a display,
4 said motion of said pointing cursor corresponding to a movement pointing device
5 used to move said pointing cursor from a first source position to a first destination
6 position on said display;
7 generating a set of motion vectors corresponding to said motion of said
8 pointing cursor from said first source position to said first destination position; and
9 storing said set of motion vectors and said destination position referenced to
10 said first source position.
- 1 2. The method of claim 1 further comprising the steps of:
2 1) generating, within an application program, a first motion vector for said
3 pointing cursor on said display as said pointing cursor moves from a second source
4 position in response to a motion of said pointing device;
5 2) predicting a destination point icon in response to a compare of said first
6 source position to a corresponding stored source position or a source position
7 proximate to said first source position, wherein said corresponding stored source

8 position which compares to said first source position also has stored said first motion
9 vector or a motion vector proximate to said first motion vector; and

10 3) highlighting said destination point icon;

1 3. The method of claim 2, further comprising the step of:
2 repeating said steps 1) through 3) until said highlighted destination point icon
3 is actuated by a user of said pointing device.

1 4. The method of claim 1, further comprising the steps of:

2 1) generating, within an application program, a first motion vector for said
3 pointing cursor on said display as said pointing cursor moves from a second source
4 position in response to a motion of said pointing device;

5 2) predicting a destination point icon in response to a compare of said first
6 source position to a corresponding stored source position or a source position
7 proximate to said first source position, wherein said corresponding stored source
8 position which compares to said first source position also has stored said first motion
9 vector or a motion vector proximate to said first motion vector; and

10 3) modifying a motion of said pointing cursor to more nearly follow ideal
11 motion vectors from said first source position to said destination point icon.

1 5. The method of claim 4, further comprising the step of:
2 repeating said steps 1) through 3) until said predicted destination point icon is
3 actuated by a user of said pointing device.

1 6. The method of claim 1, wherein said display corresponds to a graphic user
2 interface (GUI).

1 7. The method of claim 1, wherein said first source position is a position of a
2 predetermined source point icon.

1 8. The method of claim 1, wherein said first destination position is a position of
2 a predetermined destination point icon.

1 9. The method of claim 1, wherein another of said motion vectors is generated
2 each time said motion starts from a motion stop.

1 10. The method of claim 1, wherein said motion vector comprises parameters
2 defining a pointing cursor average velocity, starting position, stopping position, and
3 motion direction.

1 11. The method of claim 6, wherein said set of motion vectors are stored in
response to actuating said destination point icon.

1 12. The method of claim 1, wherein said set of motion vectors are associated with
2 said first source position and source positions proximate to said first source position,
3 and said first destination position and destination positions proximate to said second
4 position.

1 13. The method of claim 2, wherein said second source position corresponds to a
2 position of a source point icon.

1 14. The method of claim 2, wherein said pointing cursor locks to said destination
2 point icon until said destination point icon is actuated by a user.

1 15. The method of claim 2, wherein said pointing cursor locks to said destination
2 point icon until a motion vector indicates a more likely destination point icon.

1 16. The method of claim 3, wherein said pointing cursor motion proceeds from
2 said first source position to said destination point icon corresponding to an ideal
3 motion vector, said ideal motion vector motion changed only if a new destination
4 point icon is determined.

1 17. A computer program product, said computer program product embodied in a
2 machine readable medium, including programming for a processor, said computer
3 program comprising a program of instructions for performing the program steps of:

4 acquiring data corresponding to a motion of a pointing cursor on a display,
5 said motion of said pointing cursor corresponding to a movement pointing device
6 used to move said pointing cursor from a first source position to a first destination
7 position on said display;

8 generating a set of motion vectors corresponding to said motion of said
9 pointing cursor from said first source position to said first destination position; and

10 storing said set of motion vectors and said destination position referenced to
11 said first source position.

1 18. The computer program product of claim 17 further comprising the steps of:

2 1) generating, within an application program, a first motion vector for said
3 pointing cursor on said display as said pointing cursor moves from a second source
4 position in response to a motion of said pointing device;

5 2) predicting a destination point icon in response to a compare of said first
6 source position to a corresponding stored source position or a source position
7 proximate to said first source position, wherein said corresponding stored source

8 position which compares to said first source position also has stored said first motion
9 vector or a motion vector proximate to said first motion vector; and

10 3) highlighting said destination point icon;

1 19. The computer program product of claim 18, further comprising the step of:
2 repeating said steps 1) through 3) until said highlighted destination point icon
3 is actuated by a user of said pointing device.

1 20. The computer program product of claim 17, further comprising the steps of:

2 1) generating, within an application program, a first motion vector for said
3 pointing cursor on said display as said pointing cursor moves from a second source
4 position in response to a motion of said pointing device;

5 2) predicting a destination point icon in response to a compare of said first
6 source position to a corresponding stored source position or a source position
7 proximate to said first source position, wherein said corresponding stored source
8 position which compares to said first source position also has stored said first motion
9 vector or a motion vector proximate to said first motion vector; and

10 3) modifying a motion of said pointing cursor to more nearly follow ideal
11 motion vectors from said first source position to said destination point icon.

1 21. The computer program product of claim 20, further comprising the step of:
2 repeating said steps 1) through 3) until said predicted destination point icon is
3 actuated by a user of said pointing device.

1 22. The computer program product of claim 17, wherein said display corresponds
2 to a graphic user interface (GUI).

1 23. The computer program product of claim 17, wherein said first source position
2 is a position of a predetermined source point icon.

1 24. The computer program product of claim 17, wherein said first destination
2 position is a position of a predetermined destination point icon.

1 25. The computer program product of claim 17, wherein another of said motion
2 vectors is generated each time said motion starts from a motion stop.

1 26. The computer program product of claim 17, wherein said motion vector
2 comprises parameters defining a pointing cursor average velocity, starting position,
3 stopping position, and motion direction.

1 27. The computer program product of claim 24, wherein said set of motion
2 vectors are stored in response to actuating said predetermined destination point icon.

1 28. The computer program product of claim 17, wherein said set of motion
2 vectors are associated with said first source position and source positions proximate
3 to said first source position, and said first destination position and destination
4 positions proximate to said second position.

1 29. The computer program product of claim 18, wherein said second source
2 position corresponds to a position of a source point icon.

1 30. The computer program product of claim 18, wherein said pointing cursor
2 locks to said destination point icon until said destination point icon is actuated by a
3 user.

1 31. The computer program product of claim 18, wherein said pointing cursor
2 locks to said destination point icon until a motion vector indicates a more likely
3 destination point icon.

1 32. The computer program product of claim 17, wherein said pointing cursor
2 motion proceeds from said first source position to said destination point icon
3 corresponding to an ideal motion vector, said ideal motion vector motion changed
4 only if a new destination point icon is determined.

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1 33. A data processing system comprising:
2 a central processing unit (CPU);
3 a random access memory (RAM);
4 a communications adapter coupled to a communication network;
5 an I/O adapter
6 a bus system coupling said CPU to said PROM, said communications adapter,
7 said I/O adapter, and said RAM, wherein said CPU comprises:
8 circuitry for acquiring data corresponding to a motion of a pointing cursor on a
9 display, said pointing cursor corresponding to a pointing device used to move said
10 pointing cursor from a first source position to a first destination position on said
11 display;
12 circuitry for generating a set of motion vectors corresponding to said motion
13 of said pointing cursor from said first source position to said first destination position,
14 said motion vectors having a vector source point, a magnitude and direction; and
15 circuitry for storing said set of motion vectors and said destination position
16 referenced to said first source position.

1 34. The data processing system of claim 33, further comprising:
2 circuitry for generating, within an application program, a first motion vector
3 for said pointing cursor on said display as said pointing cursor moves from a second
4 source position in response to a motion of said pointing device;
5 circuitry for predicting a destination point icon in response to a compare of
6 said first source position with a corresponding stored source position or a stored
7 proximate source position having a stored corresponding said first motion vector or a
8 proximate motion vector; and
9 circuitry for highlighting said destination point icon.

1 35. The data processing system of claim 33, further comprising:
2 circuitry for generating, within an application program, a first motion vector
3 for said pointing cursor on said display as said pointing cursor moves from a second
4 source position in response to a motion of said pointing device;
5 circuitry for predicting a destination point icon in response to a compare of
6 said first source position with a corresponding stored source position or a stored
7 proximate source position having a stored corresponding said first motion vector or a
8 proximate motion vector; and
9 circuitry for modifying a motion of said pointing cursor to follow ideal motion
10 vectors from said first source position to said destination point icon.

41. The data processing system of claim 34, wherein said set of motion vectors are stored in response to actuating said destination point icon.

1 42. The data processing system of claim 33, wherein said set of motion vectors are
2 associated with said first source position and source positions proximate to said first
3 source position, and said first destination position and destination positions proximate
4 to said second position.

1 43. The data processing system of claim 34, wherein said second source position
2 corresponds to a position of a source point icon.

1 44. The data processing system of claim 34, wherein said pointing cursor locks to
2 said destination point icon until said destination point icon is actuated by a user.

1 45. The data processing system of claim 34, wherein said pointing cursor locks to
2 said destination point icon until a motion vector indicates a more likely destination
3 point icon.

1 46. The data processing system of claim 35, wherein said pointing cursor motion
2 proceeds from said first source position to said destination point icon corresponding
3 to an ideal motion vector, said ideal motion vector motion changed only if a new
4 destination point icon is determined.

Variable	Mean	SD	Min	Max
Age	34.5	10.2	22	55
Gender	Male	1.0	0	1
Marital status	Married	1.0	0	1
Education	High school	1.0	0	1
Occupation	Manager	1.0	0	1
Income	High	1.0	0	1
Health	Good	1.0	0	1
Stress	Low	1.0	0	1
Life satisfaction	High	1.0	0	1
Work satisfaction	High	1.0	0	1
Job satisfaction	High	1.0	0	1
Organizational commitment	High	1.0	0	1
Turnover intention	Low	1.0	0	1
Job performance	High	1.0	0	1
Organizational citizenship behavior	High	1.0	0	1
Work engagement	High	1.0	0	1
Job satisfaction	High	1.0	0	1
Organizational commitment	High	1.0	0	1
Turnover intention	Low	1.0	0	1
Job performance	High	1.0	0	1
Organizational citizenship behavior	High	1.0	0	1
Work engagement	High	1.0	0	1
Job satisfaction	High	1.0	0	1
Organizational commitment	High	1.0	0	1
Turnover intention	Low	1.0	0	1
Job performance	High	1.0	0	1
Organizational citizenship behavior	High	1.0	0	1
Work engagement	High	1.0	0	1
Job satisfaction	High	1.0	0	1
Organizational commitment	High	1.0	0	1
Turnover intention	Low	1.0	0	1
Job performance	High	1.0	0	1
Organizational citizenship behavior	High	1.0	0	1
Work engagement	High	1.0	0	1
Job satisfaction	High	1.0	0	1
Organizational commitment	High	1.0	0	1
Turnover intention	Low	1.0	0	1
Job performance	High	1.0	0	1
Organizational citizenship behavior	High	1.0	0	1
Work engagement	High	1.0	0	1
Job satisfaction	High	1.0	0	1
Organizational commitment	High	1.0	0	1
Turnover intention	Low	1.0	0	1
Job performance	High	1.0	0	1
Organizational citizenship behavior	High	1.0	0	1
Work engagement	High	1.0	0	1
Job satisfaction	High	1.0	0	1
Organizational commitment	High	1.0	0	1
Turnover intention	Low	1.0	0	1
Job performance	High	1.0	0	1
Organizational citizenship behavior	High	1.0	0	1
Work engagement	High	1.0	0	1
Job satisfaction	High	1.0	0	1
Organizational commitment	High	1.0	0	1
Turnover intention	Low	1.0	0	1
Job performance	High	1.0	0	1
Organizational citizenship behavior	High	1.0	0	1
Work engagement	High	1.0	0	1
Job satisfaction	High	1.0	0	1
Organizational commitment	High	1.0	0	1
Turnover intention	Low	1.0	0	1
Job performance	High	1.0	0	1
Organizational citizenship behavior	High	1.0	0	1
Work engagement	High	1.0	0	1
Job satisfaction	High	1.0	0	1
Organizational commitment	High	1.0	0	1
Turnover intention	Low	1.0	0	1
Job performance	High	1.0	0	1
Organizational citizenship behavior	High	1.0	0	1
Work engagement	High	1.0	0	1
Job satisfaction	High	1.0	0	1
Organizational commitment	High	1.0	0	1
Turnover intention	Low	1.0	0	1
Job performance	High	1.0	0	1
Organizational citizenship behavior	High	1.0	0	1
Work engagement	High	1.0	0	1
Job satisfaction	High	1.0	0	1
Organizational commitment	High	1.0	0	1
Turnover intention	Low	1.0	0	1
Job performance	High	1.0	0	1
Organizational citizenship behavior	High	1.0	0	1
Work engagement	High	1.0	0	1
Job satisfaction	High	1.0	0	1
Organizational commitment	High	1.0	0	1
Turnover intention	Low	1.0	0	1
Job performance	High	1.0	0	1
Organizational citizenship behavior	High	1.0	0	1
Work engagement	High	1.0	0	1
Job satisfaction	High	1.		

Variable	Mean	SD	Min	Max
Age	34.5	10.2	18	65
Gender	Male	1.0	0	1
Marital status	Married	1.0	0	1
Education	High school	1.0	0	1
Occupation	Manager	1.0	0	1
Income	High	1.0	0	1
Health status	Good	1.0	0	1
Stress level	Low	1.0	0	1
Life satisfaction	High	1.0	0	1
Work-life balance	Good	1.0	0	1
Family support	High	1.0	0	1
Community involvement	High	1.0	0	1
Volunteer work	High	1.0	0	1
Charitable contributions	High	1.0	0	1
Political participation	High	1.0	0	1
Civil disobedience	Low	1.0	0	1
Protest participation	Low	1.0	0	1
Nonviolent resistance	Low	1.0	0	1
Violent resistance	Low	1.0	0	1
Political activism	Low	1.0	0	1
Civil disobedience	Low	1.0	0	1
Protest participation	Low	1.0	0	1
Nonviolent resistance	Low	1.0	0	1
Violent resistance	Low	1.0	0	1
Political activism	Low	1.0	0	1
Civil disobedience	Low	1.0	0	1
Protest participation	Low	1.0	0	1
Nonviolent resistance	Low	1.0	0	1
Violent resistance	Low	1.0	0	1
Political activism	Low	1.0	0	1
Civil disobedience	Low	1.0	0	1
Protest participation	Low	1.0	0	1
Nonviolent resistance	Low	1.0	0	1
Violent resistance	Low	1.0	0	1
Political activism	Low	1.0	0	1
Civil disobedience	Low	1.0	0	1
Protest participation	Low	1.0	0	1
Nonviolent resistance	Low	1.0	0	1
Violent resistance	Low	1.0	0	1
Political activism	Low	1.0	0	1
Civil disobedience	Low	1.0	0	1
Protest participation	Low	1.0	0	1
Nonviolent resistance	Low	1.0	0	1
Violent resistance	Low	1.0	0	1
Political activism	Low	1.0	0	1
Civil disobedience	Low	1.0	0	1
Protest participation	Low	1.0	0	1
Nonviolent resistance	Low	1.0	0	1
Violent resistance	Low	1.0	0	1
Political activism	Low	1.0	0	1
Civil disobedience	Low	1.0	0	1
Protest participation	Low	1.0	0	1
Nonviolent resistance	Low	1.0	0	1
Violent resistance	Low	1.0	0	1
Political activism	Low	1.0	0	1
Civil disobedience	Low	1.0	0	1
Protest participation	Low	1.0	0	1
Nonviolent resistance	Low	1.0	0	1
Violent resistance	Low	1.0	0	1
Political activism	Low	1.0	0	1
Civil disobedience	Low	1.0	0	1
Protest participation	Low	1.0	0	1
Nonviolent resistance	Low	1.0	0	1
Violent resistance	Low	1.0	0	1
Political activism	Low	1.0	0	1
Civil disobedience	Low	1.0	0	1
Protest participation	Low	1.0	0	1
Nonviolent resistance	Low	1.0	0	1
Violent resistance	Low	1.0	0	1
Political activism	Low	1.0	0	1
Civil disobedience	Low	1.0	0	1
Protest participation	Low	1.0	0	1
Nonviolent resistance	Low	1.0	0	1
Violent resistance	Low	1.0	0	1
Political activism	Low	1.0	0	1
Civil disobedience	Low	1.0	0	1
Protest participation	Low	1.0	0	1
Nonviolent resistance	Low	1.0	0	1
Violent resistance	Low	1.0	0	1
Political activism	Low	1.0	0	1
Civil disobedience	Low	1.0	0	1
Protest participation	Low	1.0	0	1
Nonviolent resistance	Low	1.0	0	1
Violent resistance	Low	1.0	0	1
Political activism	Low	1.0	0	1
Civil disobedience	Low	1.0	0	1
Protest participation	Low	1.0	0	1
Nonviolent resistance	Low	1.0	0	1
Violent resistance				

Figure 1 consists of 12 histograms arranged in a single column. Each histogram represents the distribution of the number of non-zero elements in the vector x for a specific value of n . The x-axis for all histograms is labeled 'x' and ranges from 0 to 120. The y-axis is labeled 'count' and ranges from 0 to 100. The histograms are for $n = 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120$. As n increases, the distribution of non-zero elements shifts to the right, indicating that more elements in the vector x are non-zero for larger n . The peak count for each distribution decreases as n increases.

Variable	Mean	SD	Min	Max
Age	38.5	10.5	25	55
Gender	0.5	0.5	0	1
Marital Status	0.5	0.5	0	1
Education	12.5	1.5	10	15
Income	15.5	5.5	10	25
Health	1.5	0.5	1	2
Stress	2.5	1.5	1	4
Depression	1.5	0.5	1	2
Life Satisfaction	3.5	1.5	1	5
Work Satisfaction	3.5	1.5	1	5
Family Satisfaction	3.5	1.5	1	5
Community Satisfaction	3.5	1.5	1	5
Overall Satisfaction	3.5	1.5	1	5

Variable	Mean	SD	Min	Max
Age	35.2	12.5	18	65
Gender	1.2	0.4	1	2
Marital Status	1.5	0.5	1	3
Education	12.8	2.1	8	16
Income	15.5	3.2	10	20
Health Status	1.8	0.6	1	3
Stress Level	2.5	1.0	1	4
Life Satisfaction	3.2	1.2	1	5
Work-Life Balance	2.8	1.1	1	4
Family Support	3.5	1.3	1	5
Community Involvement	2.2	0.9	1	4
Personal Growth	3.0	1.1	1	4
Financial Stability	2.7	1.0	1	4
Emotional Well-being	3.1	1.2	1	4
Physical Health	2.9	1.1	1	4
Social Connections	3.3	1.2	1	5
Meaning in Life	3.4	1.3	1	5
Resilience	2.6	1.0	1	4
Optimism	3.6	1.4	1	5
Gratitude	3.7	1.5	1	5
Self-compassion	3.8	1.6	1	5
Forgiveness	3.9	1.7	1	5
Inner Peace	4.0	1.8	1	5
Life Purpose	4.1	1.9	1	5
Existential Well-being	4.2	2.0	1	5
Transcendental Experience	4.3	2.1	1	5
Spiritual Growth	4.4	2.2	1	5
Divine Connection	4.5	2.3	1	5
Religious Faith	4.6	2.4	1	5
Mystical Experience	4.7	2.5	1	5
Enlightenment	4.8	2.6	1	5
Nirvana	4.9	2.7	1	5
Bodhi	5.0	2.8	1	5

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1 50. A computer program product, said computer program product embodied in a
2 machine readable medium, including programming for a processor, said computer
3 program comprising a program of instructions for performing the program step of:
4 predicting, within an application program, a destination point icon by
5 comparing a motion vector imparted by a user to a pointing cursor to a previously
6 acquired motion vector acquired from said user moving said pointing cursor.

1 51. The computer program product of claim 50, further comprising the step of:
2 highlighting said destination point icon in response to said prediction step
3 until said predicted destination point icon is actuated by said user

1 52. The computer program product of claim 50, further comprising the step of:
2 modifying a motion of said pointing cursor as a user moves a pointing device
3 corresponding to said pointing cursor in an attempt to move said pointing cursor from
4 a source point icon to said predicted destination point icon.

- 1 53. A data processing system comprising:
2 a central processing unit (CPU);
3 a random access memory (RAM);
4 a communications adapter coupled to a communication network;
5 an I/O adapter
6 a bus system coupling said CPU to said PROM, said communications adapter,
7 said I/O adapter, and said RAM, wherein said CPU comprises:
8 circuitry operable to predict, within an application program, a destination
9 point icon by comparing a motion vector imparted by a user to a pointing cursor to a
10 previously acquired motion vector acquired from said user moving said pointing
11 cursor.
- 1 54. The data processing system of claim 53, further comprising:
2 circuitry operable to highlight said predicted destination point icon until said
3 predicted destination point icon is actuated by said user

- 1 55. The data processing system of claim 53, further comprising:
2 circuitry operable to modify a motion of said pointing cursor as a user moves a
3 pointing device corresponding to said pointing cursor in an attempt to move said
4 pointing cursor from a source point icon to said predicted destination point icon.

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